

IN THE CLAIMS:

1. (Previously Presented) A method for coding used by a video encoder that includes a base layer coding means, provided for receiving a video sequence and generating therefrom base layer signals that correspond to one or more video objects (VOs) contained in the video frames of said sequence and constitute a first bitstream suitable for transmission at a base layer bit rate to a video decoder, and enhancement layer coding means, provided for receiving said video sequence and a decoded version of said base layer signals and generating therefrom enhancement layer signals associated with corresponding base layer signals and suitable for transmission at an enhancement layer bit rate to said video decoder, wherein said method comprises coding the VOs of said sequence according to the steps of: (A) segmenting a video sequence into one or more VOs; (B) coding a plurality of successive video object planes (VOPs) of each of said VOs, said coding step itself comprising sub-steps of (i) coding the texture of said VOPs, and (ii) coding the shape of said VOPs, wherein sub-step (B)(i) comprises:

(a) performing a first coding operation without prediction for the VOPs defined as intracoded or I-VOPs, coded without any temporal reference to another VOP,

(b) performing a second coding operation with a unidirectional prediction for the VOPs defined as predictive or P-VOPs, coded using only a past I- or P-VOP as a temporal reference, and

(c) performing a third coding operation with a bidirectional prediction for the VOPs defined as bidirectional predictive or B-VOPs, coded using both past and future I- or P-VOPs as temporal references,

wherein the temporal reference of the enhancement layer P-VOPs is selected only as the temporally closest candidate, and the temporal references of the enhancement layer B-VOPs are selected as the two temporally closest candidates, in either case without any consideration of the layer to which the temporally closest candidates belong.

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2. (Original) Computer executable process steps stored on a computer readable medium and provided for carrying out a coding method according to claim 1.

3. (Original) A computer program product for a video encoder, for carrying out in said encoder the coding method according to claim 1, which product comprises a set of instructions which, when loaded into said encoder, causes it to carry out the steps of said method.

4. (Currently Amended) A video encoder comprising:

base layer coding means for receiving a video sequence and generating therefrom base layer signals that correspond to video objects (VOs) contained in the video frames of said sequence comprising a first bitstream suitable for transmission at a base layer bit rate to a video decoder, and

enhancement layer coding means for receiving said video sequence and a decoded version of said base layer signals and generating therefrom enhancement layer signals associated with corresponding base layer signals and suitable for transmission at an enhancement layer bit rate to said video decoder, said video encoder further comprising:

(A) means for segmenting the video sequence into said VOs;

B' (B) means for coding the texture and the shape of successive video object planes (VOPs) of each of said VOs, the texture coding means performing a first coding operation coding without prediction for the VOPs called intracoded or I-VOPs, coded without any temporal reference to another VOP, a second coding operation with a unidirectional prediction for the VOPs called predictive or P-VOPs, coded using only a past I- or P-VOP as a temporal reference, and a third coding operation with a bidirectional prediction for the VOPs called bidirectional predictive or B-VOPs, coded using both past and future I- or P-VOPs as temporal references

wherein the temporal reference of the enhancement layer P-VOPs ~~or B-VOPs~~ is selected only as the temporally closest candidate, and the temporal references of the enhancement layer B-VOPs are selected as the two temporally closest candidates, in either case without any consideration of the layer to which the temporally closest candidates belong.
